

STATEMENT OF BASIS (AI No. 14010)

for draft Louisiana Pollutant Discharge Elimination System permit No. **LA0046485** to discharge to waters of the State of Louisiana.

THE APPLICANT IS: Cargill, Inc.
Westwego Grain Elevator
933 River Road
Westwego, LA 70094

ISSUING OFFICE: Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

PREPARED BY: Lisa Kemp

DATE PREPARED: April 2, 2008

1. PERMIT STATUS**A. Reason For Permit Action:**

Permit issuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term

B. LPDES permit - LPDES permit effective date: August 1, 2003
LPDES permit expiration date: July 31, 2008
EPA has not retained enforcement authority.

C. Date Application Received: February 1, 2008; additional information received via email March 20, 2008

2. FACILITY INFORMATION**A. FACILITY TYPE/ACTIVITY - Grain Elevator**

This facility buys, sells, stores, and ships grains, primarily corn and wheat. The facility began operations in 1961. Cargill, Inc. purchased the facility in 1999.

B. FEE RATE

1. Fee Rating Facility Type: minor
2. Complexity Type: I
3. Wastewater Type: III
4. SIC code: 5153 and 4491

C. LOCATION - 933 River Road, at River Mile 103, on the West bank of the Mississippi River, approximately 2.5 miles from Westwego, Jefferson Parish; Latitude 29° 56' 14", Longitude 90° 8' 43"

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3. OUTFALL INFORMATION

Outfall 001

Discharge Type: treated sanitary wastewater
Treatment: extended aeration and chlorination
Location: at the point of discharge from the sewer treatment plant located at the link belt wharf (Latitude 29° 56' 06", Longitude 90° 8' 34")
Flow: 360 gpd
Discharge Route: to the Mississippi River

Outfall 002

Discharge Type: treated sanitary wastewater
Treatment: extended aeration and chlorination
Location: at the point of discharge from the sewer treatment plant located on the ship dock (Latitude 29° 56' 23", Longitude 90° 8' 31")
Flow: 660 gpd
Discharge Route: to the Mississippi River

Outfall 003

Discharge Type: treated sanitary wastewater
Treatment: extended aeration and chlorination
Location: at the point of discharge from the sewer treatment plant located in the main yard (Latitude 29° 56' 18", Longitude 90° 8' 54")
Flow: 2200 gpd
Discharge Route: to Bayou Segnette via local drainage, thence to Bayou Barataria

Outfall 004

Discharge Type: washdown water, air compressor condensate, stormwater, and previously monitored discharges from Outfall 003
Treatment: none
Location: at the point of discharge at the V-Notch weir
Flow: intermittent
Discharge Route: to Bayou Segnette via local drainage, thence to Bayou Barataria

Other Discharges

Dock washdown water –

Cargill periodically performs pressure wash on the shipping dock. This water runs off the dock as sheet flow. Based on the previous permit and best professional judgement (bpj), because the discharge has the same low potential for contamination as stormwater, and the facility is required to include the dock area in their stormwater pollution prevention plan, no monitoring will be required for the dock washdown water.

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Air conditioner condensate –

According to the application, air conditioner condensate is generated from one air conditioner unit. Based on the previous permit and bpj, no monitoring will be required because of the low volume and low potential for contamination.

4. **RECEIVING WATERS** - The physical location of the facility is within subsegment 020501 of the Barataria Basin. The facility's discharges are made via local drainage to Bayou Segnette, which is located in subsegment 020701 of the Barataria Basin (Outfalls 003 and 004) and to subsegment 070301 of the Mississippi River Basin (Outfalls 001 and 002).

STREAM - Mississippi River (Outfalls 001 and 002)

BASIN AND SEGMENT - Mississippi River Basin, Segment 070301

DESIGNATED USES -

- a. primary contact recreation
- b. secondary contact recreation
- c. propagation of fish and wildlife
- d. drinking water supply

STREAM - to Bayou Segnette via local drainage, thence to Bayou Barataria

BASIN AND SEGMENT - Barataria Basin, Segment 020701 (Outfalls 003 and 004)

DESIGNATED USES -

- a. primary contact recreation
- b. secondary contact recreation
- c. propagation of fish and wildlife

5. TMDL STATUS

The discharges from Cargill, Inc., Westwego Grain Elevator, are into the Mississippi River (Outfalls 001 and 002), Subsegment 070301 of the Mississippi River Basin and Bayou Segnette (Outfalls 003 and 004), Subsegment 020701 of the Barataria Basin.

Subsegment 020701, Bayou Segnette - from headwaters to Bayou Villars (020701), is listed on LDEQ's Final 2006 303(d) list as impaired for sulfates (EPA Category 5) due to drought related impacts. TMDLs have not yet been established for the sulfate impairments for this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a future TMDL. Until completion of TMDLs for the Barataria Basin, those suspected causes for impairment which are not directly attributed to the grain elevator point source category have been eliminated in the formulation of effluent limitations and other requirements of this permit. Additionally, suspected causes of impairment which could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standard were also eliminated. The discharges from Outfalls 003 and 004 should not cause or contribute to the sulfate impairment.

Subsegment 020701, Bayou Segnette - from headwaters to Bayou Villars (020701), was previously listed as impaired for organic enrichment/low DO, pathogen indicators, Nitrate/Nitrite (Nitrite + Nitrate as N), and Phosphorus, for which the below TMDLs have been developed. The Department of

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Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards. The following TMDLs have been established for subsegment 020701:

TMDL For Fecal Coliforms for Bayou Segnette, Louisiana (Subsegment 020701) was finalized on August 5, 2004. The Executive Summary states "Because permit limits for point source discharges of treated wastewater require them to meet water quality standards at the end of the pipe, the WLA for treated wastewater discharges consists of no reductions (both summer and winter).

Bayou Segnette TMDL for Biochemical Oxygen-Demanding Substances (Subsegment 020701) – Revised TMDL Report was finalized on July 30, 2004. The Westwego Grain Elevator was not considered in this TMDL. A total of five National Pollutant Discharge Elimination System (NPDES) permits were identified within Subsegment 020701. Because none of these facilities discharges directly into Bayou Segnette, no point sources were included in the model. According to the TMDL report, "The nonconservative behavior of dissolved oxygen allows many small or remote point source dischargers to be assimilated by their receiving waterbodies before they reach the modeled waterbody. These dischargers are said to have very little to no impact on the modeled waterbody and, therefore, they are not included in the model and are not subject to any reductions based on this TMDL. These facilities are permitted in accordance with state regulation and policies that provide adequate protective controls." The Westwego Grain Elevator discharges treated sanitary wastewater (Outfall 003), and washdown water, air compressor condensate, and stormwater runoff (Outfall 004) to local drainage then to Bayou Segnette. Bayou Segnette is approximately 1.25 miles down the local drainage from the facility. In addition, the volume of discharge is too small to have a significant impact on the receiving stream. Standard BOD₅ and TOC limits have been included in the permit that will address the potential for further impairment of this waterbody.

Nitrate/Nitrite (Nitrite + Nitrate as N) and Phosphorus

The Bayou Segnette TMDL for Biochemical Oxygen-Demanding Substances (Subsegment 020701) – Revised TMDL Report states "This subsegment was listed as impaired due to nutrients as well as organic enrichment/low DO. This TMDL establishes load limitations for oxygen-demanding substances and goals for reduction of those pollutants. LDEQ's position, as stated in the declaratory ruling issued by Dale Givens regarding water quality criteria for nutrients (*Sierra Club v. Givens*, 710 So.2d 249 (La. App. 1st Cir. 1997), writ denied, 705 So.2d 1106 (La. 1998), is that when oxygen-demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. The implementation of this TMDL through wastewater discharge permits and implementation of best management practices to control and reduce runoff of soil and oxygen-demanding pollutants from nonpoint sources in the watershed will also control and reduce the nutrient loading from those sources." Outfall 003 has the potential to discharge pollutants associated with the nutrients impairment.

LAC 33:IX.2707.C.f.iii allows the establishment of effluent limitations based on an indicator parameter for the pollutant of concern. LDEQ's consistent approach to controlling nutrients where the WQMP does not otherwise require specific nutrient limitations is achieved by limiting the discharge of oxygen-demanding substances through a BOD₅ limitation. Compliance with the BOD₅ limitation as the

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indicator parameter will result in the control of nutrients from the discharge sufficient to attain and maintain the applicable water quality standard. Effluent monitoring of the indicator parameter as conducted by the permittee in accordance with the effluent limitations of the permit in addition to LDEQ's ambient water quality monitoring program will allow for further evaluation by the Department to determine the effectiveness of the limitation. The reopener clause located in Other Conditions of the permit allows the Department to modify or revoke and reissue the permit if the limitations as set on the indicator parameter are shown to no longer attain and maintain applicable water quality standards.

Subsegment 070301, the Mississippi River - from Monte Sano Bayou to Head of Passes (070301), is not listed on LDEQ's Final 2004 303(d) List as impaired, and to date no TMDL's have been established. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by any future TMDLs.

6. PROPOSED EFFLUENT LIMITS

BASIS - See Rationale, Page 8.

Changes from the previous permit:

Outfall 004

Monitoring frequency for Flow and TOC has been increased from 1/month to 1/ 2 weeks due to numerous excursions.

According to additional information received from the applicant, the settling pond was filled in and the drainage ditch diverted at Outfall 004.

7. COMPLIANCE HISTORY/COMMENTS

- A. OEC – There are no open, appealed, or pending OEC enforcement actions as of February 27, 2008
- B. DMR Review/Excursions – DMRs on file for the period January, 2005 through November, 2007 for were reviewed and the following excursions were noted:

Date	Parameter	Outfall	Reported Value	Permit Limits
June, 2007	pH	001	2.9 s.u.	6.0-9.0 s.u.
December, 2006	TSS	001	53 mg/L	45 mg/L
June, 2007	pH	002	2.1 s.u.	6.0-9.0
December, 2006	TSS	002	435 mg/L	45 mg/L
June, 2007	TSS	003	56 mg/L	45 mg/L
November, 2007	TOC	004	137 mg/L	50 mg/L
March, 2007	TOC	004	122 mg/L	50 mg/L
January, 2007	TOC	004	160 mg/L	50 mg/L
October, 2006	TOC	004	178 mg/L	50 mg/L
August, 2005	TOC	004	165 mg/L	50 mg/L
July, 2005	TOC	004	112 mg/L	50 mg/L
April, 2005	TOC	004	111 mg/L	50 mg/L
January, 2005	TOC	004	82 mg/L	50 mg/L

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Note: For the months of March, 2005, May, 2005, September, 2005, October, 2005, November, 2005, March, 2006, June, 2006, and September, 2006, DMRs for Outfall 004 were reported as "no sample taken, minimal rainfall." However, flows were reported on the DMRs.

- C. Inspections – The only recent inspection on file is a Katrina damage assessment performed on October 8, 2005. This inspection revealed that the facility was operating, sheeting had been knocked off the conveyor, and there were no equipment/tanks/etc. overflows due to the hurricane.

8. EXISTING EFFLUENT LIMITS

Outfalls 001 - 003 – treated sanitary wastewater

Effluent Parameter	Monthly Average	Weekly Average	Measurement Frequency
Flow - GPD	Report	Report	1/6 months
BOD5	---	45 mg/l	1/6 months
TSS	---	45 mg/l	1/6 months
Fecal Coliform Colonies/100 ml	---	400	1/6 months
pH – Allowable Range (Standard Units)	6.0 (Minimum)	9.0 (Maximum)	1/6 months

Outfall 004 – washdown water, air compressor condensate, stormwater, and discharges from Outfall 003

Effluent Parameter	Monthly Average	Daily Maximum	Measurement Frequency
Flow - GPD	Report	Report	1/month
TOC	---	50 mg/l	1/month
Oil & Grease	---	15 mg/l	1/month
pH – Allowable Range (Standard Units)	6.0 (Minimum)	9.0 (Maximum)	1/month

9. ENDANGERED SPECIES

The receiving waterbody, Subsegment 020701 of the Barataria Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). The receiving waterbody, Subsegment 070301 of the Mississippi River Basin, has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the Pallid sturgeon (070301) which is listed as a threatened species. LDEQ has not submitted this draft permit to the FWS for review in accordance with a letter dated October 24, 2007 from Boggs (FWS) to Brown (LDEQ). As set forth in the Memorandum of Understanding between the LDEQ and the FWS, and based on information provided by the FWS, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse effect upon the Pallid sturgeon. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

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10. HISTORIC SITES

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

11. TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in the application.

12. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

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Rationale for Cargill, Inc.

1. **Outfall 001** - treated sanitary wastewater (estimated flow is 360 gpd)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg: Weekly Average (mg/l)	<u>Reference</u>
Flow	Report : Report	previous permit, LAG530000
BOD ₅	--- : 45	previous permit, LAG530000
TSS	--- : 45	previous permit, LAG530000
Fecal Coliform (colonies/100 ml)	--- : 400	previous permit, LAG530000
pH Allowable Range (Standard Units)	6.0 : 9.0 (min) (max)	previous permit, LAG530000

Treatment: extended aeration and chlorination

Monitoring Frequency: semiannually at the point of discharge from the sewer treatment plant at the link belt wharf

Limits Justification: Limits are based on the previous permit LA0046485 and the Class I Sanitary Discharge General Permit - LAG530000

2. **Outfall 002** - treated sanitary wastewater from the ship dock (estimated flow is 600 gpd)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg: Weekly Average (mg/l)	<u>Reference</u>
Flow	Report : Report	previous permit, LAG530000
BOD ₅	--- : 45	previous permit, LAG530000
TSS	--- : 45	previous permit, LAG530000
Fecal Coliform (colonies/100 ml)	--- : 400	previous permit, LAG530000
pH Allowable Range (Standard Units)	6.0 : 9.0 (min) (max)	previous permit, LAG530000

Treatment: extended aeration and chlorination

Monitoring Frequency: semiannually at the point of discharge from the sewer treatment plant on the ship dock

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Limits Justification: Limits are based on the previous permit LA0046485 and the Class I Sanitary Discharge General Permit – LAG530000

3. **Outfall 003** - treated sanitary wastewater from the offices and main yard (estimated flow is 2200 gpd)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg: Weekly Average (mg/l)	<u>Reference</u>
Flow	Report : Report	previous permit, LAG530000
BOD ₅	--- : 45	previous permit, LAG530000
TSS	--- : 45	previous permit, LAG530000
Fecal Coliform (colonies/100 ml)	--- : 400	previous permit, LAG530000
pH Allowable Range (Standard Units)	6.0 : 9.0 (min) (max)	previous permit, LAG530000

Treatment: extended aeration and chlorination

Monitoring Frequency: semiannually at the point of discharge from the sewer treatment plant in the main yard

Limits Justification: Limits are based on the previous permit LA0046485 and the Class I Sanitary Discharge General Permit – LAG530000

4. **Outfall 004** – washdown water, air compressor condensate, stormwater, and previously monitored discharges from Outfall 003 (flow is intermittent)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg: Daily Max (mg/l)	<u>Reference</u>
Flow	Report : Report	previous permit, (*), LAG480000
TOC	--- : 50	previous permit, (*), LAG480000
Oil & Grease	--- : 15	previous permit, (*), LAG480000
pH Allowable Range (Standard Units)	6.0 : 9.0 (min) (max)	previous permit, (*), LAG480000

Treatment: none

Monitoring Frequency: 1/2 weeks for Flow and TOC due to numerous excursions (see

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Compliance History, Page 5); 1/ month for all other parameters, at the point of discharge from the V-Notch weir

Limits Justification: Limits are based on the previous permit LA0046485, current LDEQ stormwater guidance (*), and the Light Commercial General LPDES permit, LAG480000 (issued August 1, 2001) – Schedule C

- * LDEQ's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)

NOTE

For outfalls containing concentration limits, the usage of concentration limits is based on BPJ for similar outfalls since the flow is variable and estimated.

STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENT

A SWP3 is included in the permit because in accordance with LAC 33:IX.2511.A.1, storm water discharges shall not be required to obtain an LPDES permit "... except... discharges associated with industrial activity." In accordance with LAC 33:IX.2511.B.14.h, facilities classified as SIC code 5153, and facilities classified as SIC code 4491 which do not have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations are not considered to have storm water discharges associated with industrial activity. However, an SWP3 is included in the permit based on the previous permit and best professional judgement since there is a potential for storm water contamination from processes including loading, unloading, and area wash down. In addition, there have been numerous excursions from the TOC limit for Outfall 004. The SWP3 shall be applied to the dock area as well as other areas of the facility.

The SWP3 shall be prepared, implemented, and maintained within six (6) months of the effective date of the final permit. The plan should identify potential sources of storm water pollution and ensure the implementation of practices to prevent and reduce pollutants in storm water discharges associated with industrial activity at the facility (see Narrative Requirements for the AI).